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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,757	09/10/2003	Swarup Acharya	18-18-18	3481

7590 08/05/2005

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EXAMINER	
TANG, KENNETH	
ART UNIT	**PAPER NUMBER**
2195	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/659,757	ACHARYA ET AL.	
	Examiner	Art Unit	
	Kenneth Tang	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the Request for Consideration on 5/11/05. Applicant's arguments have been fully considered but are found to be not persuasive.

2. Claims 1-26 are presented for examination.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3 and 5 of U.S. Patent No. 6,502,062 in view of Bigo et al. (hereinafter Bigo) (US 5,261,099).

Although the conflicting claims are not identical, they are not patentably distinct from each other because both computer systems comprise substantially the same elements, such as a method for scheduling responses in a point-to-point communication system having a plurality of local channels, receiving a plurality of job requests at a central server for scheduling, and determining an adaptive schedule. The differences between the U.S. Patent No. 6,502,062 and this application is wherein if the first job request is interrupted, an unserviced portion of data is

returned to the central server, and the unserviced portion is subsequently serviced so as to service a second job request in accordance with an updated schedule. However, Bigo teaches an adaptive scheduling mechanism of tasks to be performed in a communication system *(see Abstract and col. 15, lines 63-65)*, wherein the system is interrupted during a program segment (breakpoint), returned to the central scheduler, and execution is resumed/continued on by another program task at the breakpoint (unserviced portion is portion remaining when breaking point occurs, wherein after breaking point, the unserviced portion is resumed/continued or subsequently serviced from a second channel) *(col. 1, lines 65-68 through col. 2, lines 1-2, col. 4, lines 29-48)*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of resuming execution on a different thread/task when a prior thread is interrupted to the existing system in order to benefit from the benefits and advantages of multi-threading and parallelism, such as increasing the speed and efficiency of thread processing.

5. As to claims 2-26, they are rejected under the judicially created doctrine of obvious type double patenting for the same reasons as stated in the rejection of claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 18, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (hereinafter Lin) in view of Bigo et al. (hereinafter Bigo) (US 5,261,099).

7. As to claim 1, Lin teaches a method for scheduling responses in a point-to-point communication system having k channels, the method comprising the steps of receiving at a central server a plurality of job requests *(col. 2, lines 63-64 and Fig. 5, items 68, 74, and 10)* with a dynamic schedule for the channels *(col. 2, lines 58-63)*. Lin fails to explicitly teach, data responsive to said job requests, wherein the servicing of a first job request via a first channel is interrupted, an unserviced portion of said data is returned from a local channel server to said central server, and said unserviced portion is subsequently serviced via a second channel so as to service a second job request via said first channel in accordance with an updated schedule. However, Bigo teaches an adaptive scheduling mechanism of tasks to be performed in a communication system *(see Abstract and col. 15, lines 63-65)*, wherein the system is interrupted during a program segment (breakpoint), returned to the central scheduler, and execution is resumed/continued on by another program task at the breakpoint *(col. 1, lines 65-68 through col. 2, lines 1-2, col. 4, lines 29-48)*. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of resuming execution on a different thread/task when a prior thread is interrupted to the existing system in order to benefit from the benefits and advantages of multi-threading and parallelism, such as increasing the speed and efficiency of thread processing.

8. As to claim 2, Lin teaches the step of servicing said job requests via a plurality of local channel servers in accordance with said adaptive schedule *(col. 2, lines 58-63)*.

9. As to claim 3, Bigo teaches updating the schedule when requested by the central server *(col. 13, lines 22-26, col. 14, lines 34-40, col. 15, lines 63-65)*.

10. As to claim 4, it is rejected for the same reasons as stated in the rejection of claim 3. In addition, Bigo teaches using interrupts *(col. 1, lines 28-60)*.

11. As to claim 18, Bigo teaches wherein the communication system is an on-line system *(col. 1, line 62)*.

12. As to claim 25, it is rejected for the same reasons as stated in the rejection of claim 1.

13. As to claim 26, it is rejected for the same reasons as stated in the rejection of claim 1.

Allowable Subject Matter

14. Claims 5-17 and 19-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

16. Although the Applicant notes the "break point" concept in Bigo, Applicant argues on pages 2-4 of the Remarks that there is still no teaching of an unserviced portion of the data is subsequently serviced via a second channel.

In response, the Examiner respectfully disagrees. Bigo teaches that the unserviced portion is the portion remaining when breaking point occurs, wherein after breaking point, the unserviced portion is resumed/continued or subsequently serviced from a second channel *(col. 1, lines 65-68 through col. 2, lines 1-2, col. 4, lines 29-48)*. Bigo teaches this resumption of the unserviced portion when it states that after an interrupt, the Main Program restarts the execution from where the break point (what separates the serviced portion and the unserviced portion) occurred *(col. 4, lines 33-35)*. In addition, Applicant makes no argument as to why the "break point" concept in Bigo does not teach providing an unserviced portion of data that is subsequently serviced via a second channel.

17. Applicant argues on pages 4-5 of the Remarks that the obviousness statement that the concept of resumption (resuming execution on a different thread/task when a prior thread is interrupted) is beneficial because it increasing the speed and efficiency of thread processing is conclusory, and based on subjective evidence.

In response, one of ordinary skill in the art of thread processing would know that a resumption would increase the speed and efficiency of thread processing. As objective evidence of this, Iuchi (US 5,615,371) discloses that the advantage of permitting a resumption from a break point is to improve the efficiency of the processing *(col. 10, lines 62-64)*.

18. Applicant argues on pages 3-5 of the Remarks that there is no motivation and no reasonable expectation of success to combine Lin and Bigo.

In response, the Examiner respectfully disagrees. As stated above, the motivation to combine the two references is to increase the speed and efficiency of thread processing *(col. 1, lines 65-68 through col. 2, lines 1-2, col. 4, lines 29-48)*. The reasonable expectation of success is satisfied because it is beneficial to increase the speed and efficiency of thread processing. Again, one of ordinary skill in the art would know that this would be beneficial. As objective evidence of this, Iuchi (US 5,615,371) discloses that the advantage of permitting a resumption from a break point is to improve the efficiency of the processing *(col. 10, lines 62-64)*.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
7/28/05

MAJID BANANKHAH
PRIMARY EXAMINER